## You have 20 minutes to complete this quiz. To receive full credit, you must justify your answers.

Name :

1. (5 points) Solve the given initial value problem, where $y(\pi)=e^{\pi}$ and $y^{\prime}(\pi)=0$

$$
y^{\prime \prime}-2 y^{\prime}+2 y=0
$$

2. (5 points) Find a particular solution to the differential equation:

$$
4 y^{\prime \prime}+11 y^{\prime}-3 y=-2 t e^{-3 t}
$$

